

Claims

[0026] What is claimed is:

1. A method for acquiring packet synchronization in a packet type  
5 communication network, comprising:

providing a data packet having a framing format including a preamble split into a plurality of subpreambles;

for individual subpreamble and for combined subpreamble options, determine the following parameter:

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$$\beta_i = \frac{1}{T_i^2} \cdot \int_{t_i}^{t_i + T_i} \left| r(t) \cdot e^{-j\hat{\phi}_i} \right|^2 dt;$$

where  $T_i$  is the preamble or subpreamble duration in each option,  $t_i$  is the preamble or subpreamble start time, and  $\hat{\phi}_i$  is the estimated phase shift in each option;

determine synchronization using correlation with a priori known symbols using the subpreamble or combined subpreamble option which provides the lowest  $\beta$ .

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